

The Tesla Test Facility Linac - Status Report,
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COLLABORATION - The TESLA Test Facility Linac
(TTFL) is used to develop, construct and test components
for a proposed TeV scale linear e+e- collider. The
390 MeV linac, set up by an international collaboration at
DESY, is going to test three standard acceleration modules,
each consisting of eight superconducting acceleration
cavities and one superconducting quadrupole magnet
module. Last summer a first module was commissioned
successfully. An average accelerating gradient of 15 MV/m
was established with beam; the RF macro pulse length of
0.8 ms at constant amplitude and phase corresponds with
the TTFL design. According to the expectations the
cryogenic operation showed very low static losses of only
6 W/m at 1.8 K. Different subsystems, e.g. low level rf
control and timing, were commissioned and used to
produce a 120 MeV beam. Results of first experiments
using new beam diagnostic equipment are given. The
extension to three modules is scheduled for 1998. A
planned Free-Electron Laser setup which will demonstrate
the new Self Amplified Spontaneous Emission principle at
short wavelengths of a few ten nanometer is described
together with the necessary components.